



# MINNESOTA COST OF LIVING STUDY 2014 ANNUAL REPORT

Report to the Legislature  
as required by 116J.013

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Author: Steve Hine, Director  
Rachel Vilsack, Regional Analysis & Outreach Manager  
John Clay, Research Specialist, Principal Study Author

Minnesota Labor Market Information Office  
Minnesota Department of Employment and Economic Development

## **Communications, Analysis and Research Division - Labor Market Information Office**

1st National Bank Building ■ 332 Minnesota Street ■ Suite E200 ■ Saint Paul ■ Minnesota 55101-1351  
651-259-7400 PHONE ■ 888-234-1114 TOLL FREE ■ 651-282-5429 FAX ■ 651-296-3900 TTY ■ <http://mn.gov/deed/lmi>

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## Minnesota Cost of Living Study

## Introduction

The commissioner of the Department of Employment and Economic Development (DEED) has been mandated by statute, effective in Fiscal Year 2014, to conduct an annual cost-of-living study in Minnesota. The study is being prepared by DEED's Labor Market Information office.

February 2014 represents the first issuance of the annual cost-of-living study and therefore also the launch of this newly-developed research product. This Annual Report therefore serves as a status report on the product's development and a sample of selected Cost of Living results. A second report of more comprehensive findings and recommendations will follow.

The present report will cover the following topics:

- The statutory mandate for the Cost of Living Study, page 3.
- The mission and purpose of the study, page 4.
- A limited set of first results from the study, page 4.
- A comparison to other cost of living studies, page 5.
- An explanation of the development of the study, including the methodology, page 9, data collection, page 20, database development, page 21, web tool development, page 22, and sample calculations, page 22.

## Statutory Mandate

Minnesota Statutes 2013, chapter 116J, section 013, mandates that the commissioner of the Department of Employment and Economic Development shall conduct an annual cost-of-living study in Minnesota and report thereon by February 1 of each year.

The statute reads:

- The commissioner shall conduct an annual cost-of-living study in Minnesota. The study shall include:
  - a calculation of the statewide basic needs cost of living, adjusted for family size;
  - a calculation of the basic needs cost of living, adjusted for family size, for each county;
  - an analysis of statewide and county cost-of-living data, employment data, and job vacancy data; and
  - recommendations to aid in the assessment of employment and economic development planning needs throughout the state.
- The commissioner shall report on the cost-of-living study and recommendations by February 1 of each year to the governor and to the chairs of the standing committees of the House of Representatives and the Senate having jurisdiction over employment and economic development issues.

## Study Mission and Purpose

The mission of the Cost of Living Study is to estimate a basic-needs cost of living in Minnesota and specifically the cost of basic needs for individuals and for various family sizes, by county and aggregated to regional and statewide estimates. The study examines living costs in seven cost categories: food, housing, health care, transportation, child care, other necessities, and net taxes.

Rather than constituting a description of what income families today are earning, the study estimates the cost of living which families would need to meet through full-time income in order to meet basic needs. It is assumed that the resulting estimates will represent neither a poverty-level living nor a middle-class living but rather a safe, healthy, sufficient living.

The study results will constitute an additional economic indicator which may be utilized by public and private institutions and by individuals.

Beyond providing the raw data of these cost of living estimates, the Department of Employment and Economic Development will, as mandated by the Statute, also offer analyses and recommendations, based on the cost of living study findings, to aid in the assessment of employment and economic development planning needs throughout the state.

## First Results

The first results of the study yield the estimated cost of living for a family of four in nine sample counties. The methodology allows us to calculate estimated costs for 3930 family combinations in each of Minnesota's 87 counties, yielding a total of 341,910 income results based on the variables of family composition and location. This full range of estimates will be produced once the database is built, and at that time second report will follow, presenting the key results all across the state.

For the present report, with the method and data collection complete but the database still in progress, we have chosen to hand-calculate sample results for a family of four in nine counties.

The sample counties for this report were selected to offer regional variety and to capture a considerable share of population. Each of these counties represents the Minnesota portion of a Metropolitan Statistical Area: Ramsey County (Minneapolis-St. Paul-Bloomington MN-WI), Hennepin County (Minneapolis-St. Paul-Bloomington MN-WI), St. Louis County (Duluth MN-WI), Stearns County (St. Cloud MN), Clay County (Fargo ND-MN), Polk County (Grand Forks ND-MN), Olmsted County (Rochester MN), Blue Earth County ((Mankato-New Ulm-North Mankato MN), and Houston County (La Crosse-Onalaska WI-MN).

The specifications for the family of four are as follows:

- Two working parents
- Adults: female age 35, male age 35
- Children: female age 12, male age 8
- Employer-provided health insurance.

## First Results: Cost of Living for a Family of Four in Nine Minnesota Counties

County	Annual Family Cost	Annual Wage Per Worker	Hourly Wage Per Worker	Monthly Components						
				Food	Housing	Health Care	Transport	Child Care	Other	Net Taxes
Blue Earth	\$57,171	\$28,586	\$13.74	\$810	\$987	\$341	\$861	\$1,000	\$288	\$479
Clay	\$58,569	\$29,285	\$14.08	\$817	\$1,030	\$341	\$926	\$964	\$296	\$508
Hennepin	\$77,104	\$38,552	\$18.53	\$851	\$1,361	\$465	\$1,082	\$1,414	\$354	\$897
Houston	\$60,212	\$30,106	\$14.47	\$816	\$993	\$341	\$1,056	\$980	\$290	\$542
Olmsted	\$63,587	\$31,794	\$15.29	\$820	\$1,181	\$341	\$874	\$1,167	\$320	\$597
Polk	\$57,360	\$28,680	\$13.79	\$824	\$1,003	\$341	\$874	\$965	\$292	\$482
Ramsey	\$76,027	\$38,014	\$18.28	\$858	\$1,361	\$465	\$1,134	\$1,298	\$355	\$864
St. Louis	\$60,017	\$30,009	\$14.43	\$814	\$922	\$341	\$965	\$1,140	\$278	\$543
Stearns	\$58,780	\$29,390	\$14.13	\$811	\$1,015	\$341	\$1,043	\$883	\$292	\$514

Source: DEED Minnesota Cost of Living Study

(For those who enjoy the technical details, sample calculations for these first results may be viewed starting on page 20 of this report.)

## Minnesota Does it Best: Comparison to Other Studies

Over the past decade researchers around the nation have begun developing methods for investigating the cost of living in absolute dollar terms rather than simply measuring the rate of change of costs through indexes. A comparison of studies shows that DEED's Minnesota Cost of Living Study has distinct advantages over the others.

Two of the better known national cost of living measures today are the Living Wage Calculator (see <http://livingwage.mit.edu/>) by Amy Glasmeier of Massachusetts Institute of Technology in Cambridge, Massachusetts and the Family Budget Calculator (see <http://www.epi.org/resources/budget/>) by Elise Gould et al of the Economic Policy Institute in Washington, DC. A well-known state cost of living measure is the Family Wage and Budget Calculator (see <http://www.jobsnowcoalition.org/calculator/calculator.html>) by Herb Cederberg and Colette Lafond, associates of Jobs Now Coalition in St. Paul, Minnesota. We will call these three the "MIT", "EPI", and "Jobs Now" studies.

The MIT and EPI studies estimate the cost of living in localities within each of the fifty states, including of course Minnesota. The Jobs Now study, like our own, applies only to localities within Minnesota. So what is the value of a DEED-LMI study? The answer comes from a comparison of the methodologies of all four studies, and the answer is: The DEED Cost of Living Study has drawn inspiration from each of these other studies and also has innovated beyond them, to create a more accurate, precise, and versatile picture of the cost of living than any of the others.

DEED's Cost of Living Study, like the other three, sorts living costs into seven cost categories: food, housing, health care, transportation, child care, other necessities, and net taxes. These categories became common usage following Amy Glasmeier's series of economic base assessments conducted around the US in 2001. The broader goal of Glasmeier's assessments was research into the inputs and outputs of local economies and prospects for economic development. The examination of living costs was just one important facet of this research, but the roots of cost of living research in economic development demonstrates the breadth of potential applications of the Cost of Living Study. (See Glasmeier's assessments at <http://povertyinamerica.mit.edu/products/publications/>.)

For our study and the other three, the costs within the seven categories vary by family composition and location. Therefore the key to an effective study is in finding data sources and methods offering the highest possible degree of precision or specificity of family composition and location, as well as the highest degree of accuracy of information. Family composition refers to the number, age, and gender of adults, working adults, and children in the family unit.

## Family Composition

The family compositions examined by DEED's Minnesota Cost of Living Study far exceed the precision of the other three studies.

MIT estimates costs for eight family compositions: one or two adults, including one working adult, and zero, one, two, or three children. Adult ages are assumed to be 19 to 50 for food costs and are not specified for other cost categories. Child ages are pegged to family size as follows: If there is one child, the age is 4 years, if two, ages 4 and 9, if three, ages 4, 9, and 15. Adult and child gender is not specified. For food costs, male and female cost levels are averaged.

EPI estimates costs for six family compositions: one or two adults with one, two, or three children. Again, child ages are pegged to family size: If there is one child, the age is 4 years, if two, ages 4 and 8, if three, ages 4, 8, and 12. Adult ages are assumed to be age 19 to 50 for food costs and 18 to 64 for health costs. These ages are blocks: there are no age intervals within these blocks. Adult gender is assumed to female for one-adult families, and one female and one male for two-adult families. For adult food costs, male and female cost levels are applied, but for the third child (age 12) male and female costs are averaged.

Jobs Now Coalition estimates costs for 18 family compositions, based on number of adults, working adults, and children in the family unit. These compositions range from one working adult without children to two working adults with five children. As with the MIT and EPI studies, however, age and gender are fixed and are pegged to family size.

DEED examines costs for a wide array of family compositions: one or two adults, with zero, one, two, three, or four children. Within these compositions, we allow any combination of adult and child genders. For adults we allow four age blocks: 19-35, 36-50, and 51-65. (In 2015 we will add an age category of 66 plus.) For children we allow nine age blocks: 1, 2-3, 4-5, 6-8, 9-11, 12, 13, 14-16, and 17-18. As with the Jobs Now study, in any family unit containing two adults we allow for one or both adults to be working. This option, which is missing from both MIT's and EPI's study, is important because the number of working adults is a significant determinant of costs in child care, transportation, and net taxes. All told, our study's number, age, and employment variables allow for almost 4,000 family compositions.

All four studies assume at least one adult working full-time for every family unit because it is assumed that a typical family cannot reasonably expect to meet basic needs on less employment than this.

The advantage of DEED's extensive family compositions is that citizens, policymakers, or researchers can target the compositions of special interest to them. However, we also caution that such an extensive range of options demands more care on the part of policymakers or planners as they try to choose typical or representative family compositions. DEED also thereby takes on a greater responsibility to offer expert guidance on such choices as appropriate. We believe, ultimately, that advantages of versatility outweigh any disadvantages of unwieldiness.

### **Location-Specific Data**

The locations examined by DEED's Minnesota Cost of Living Study likewise exceeds the precision of the MIT and EPI studies and even offers improvements over the Minnesota-focused Jobs Now study.

For the food category, DEED adjusts USDA national data to the county level using C2ER's County Cost of Living Index, last updated in 2013. MIT adjusts USDA national data to the Midwest census region using 2007 USDA report. EPI and Jobs Now do not regionally adjust the national data.

For the housing category, all four studies use county-level US HUD Fair Market Rent data.

For the health care category, DEED uses Medical Expenditures Panel Survey (MEPS) data for insurance contributions specific to the Minneapolis-St Paul-Bloomington MSA and the remainder of the state, and data for out-of-pocket costs which is keyed to aggregated MSAs in the Midwest census region and aggregated rural areas in the Midwest census region. MIT uses MEPS data for insurance contributions which is specific to Minnesota but does not distinguish between the Minneapolis-St Paul-Bloomington MSA and the remainder of the state. For out-of-pocket costs MIT uses US BLS Consumer Expenditure Survey data keyed to the Midwest census region but does not distinguish between MSA and rural areas. EPI uses MEPS data sources with the same location specificity as DEED. Jobs Now uses Health Partners price offers via ehealthinsurance.com for individually-acquired health insurance contributions. For employer-union group insurance and for all out-of-pocket costs, Jobs Now uses MEPS data, but the methodology is silent on the location specifications of the data.

For the transportation category, DEED adjusts 2009 National Household Transportation Survey national data to the county level using adjustment factors derived from the US Census American Community Survey (ACS). The ACS adjustment also captures distinctions between rural areas and metropolitan areas of various population sizes. MIT uses data from the Consumer Expenditure Survey, adjusted only to the Midwest census region. EPI uses data from the 2009 National Household Transportation for rural areas and metropolitan areas of various population sizes but without any state or county specificity. Jobs Now uses an earlier national transportation survey, also without any state or county specificity.

For the child care category, DEED uses county-level 2013 data from Child Care Aware Minnesota. MIT uses state-level data from a 2011 report by the National Association of Child Care Resource and Referral Agencies, the predecessor to Child Care Aware America. EPI uses state-level data and urban-rural differentials from a 2012 report by Child Care Aware America. Jobs Now uses the same data source as DEED, but Jobs Now's data was last updated in 2010.

For the other necessities category, we use Consumer Expenditure Survey national data to determine other necessities as a share of food and housing costs and then apply this percentage to county-adjusted food costs and county-level housing data. MIT uses data keyed to the Midwest census region without any input of state or county-level data. EPI uses approximately the same method and data sources as DEED but without the county-level food adjustment. Jobs Now uses Consumer Expenditure Survey national data without any regional adjustment or state- or county-level input.

For the net taxes category, all four studies seem to apply state-level specificity, though MIT seems to allow less variability of tax rate than the rest. DEED uses the Minnesota selection on the TAXSIM tax simulation software from the National Bureau for Economic Research. MIT uses the standard payroll tax, a flat state-specific income tax rate, and a federal income tax rate which is the average rate paid by median-income four-person families. MIT's method would seem sound in the absence of a tax simulator, but using TAXSIM would seem to be a better approach. EPI uses the state selection on the TAXSIM tax simulation software. Jobs Now uses Minnesota-specific tax rules, though the methodology does not reveal whether taxes are calculated with TAXSIM or by another means.

It is little surprise that DEED's Minnesota Cost of Living Study should excel in the location specificity of data since we have the luxury of examining a single state rather than all fifty states. Yet even when compared to another Minnesota-only study, that of Jobs Now, the DEED study still excels because of our dedicated effort to find the most location-specific and most reliable data available.

## Study Development

Developing the Cost of Living Study has entailed developing a methodology, collecting data, building the SQL database, and developing a web interface. After launch, annual maintenance will consist chiefly of data collection and processing, with occasional enhancements in methodology and web interface as needed.

## Methodology

We have developed a methodology for each cost category. These methodologies were developed through original research by Labor Market Information staff and through consultation with state and national experts.

### Food

Food costs are based on the US Department of Agriculture's "Food Plans: Cost of Food at Home", which provides monthly estimates of the average cost of four different food plans: Thrifty, Low-cost, Moderate-cost and Liberal. We use the Low-cost monthly estimates because studies have shown it is difficult to maintain a nutritionally adequate diet on the Thrifty food plan. As recommended by the USDA, we select June to serve as a sample month for the year.

Although restaurant meals are common in family budgets and diets, we do not include this additional cost for two reasons. First, it would violate our no-frills criteria; and, second, the nutritional value of food prepared away from home is less per unit of cost than food prepared at home.

The USDA Cost of Food applies age ranges for both adults and children and also applies gender to all persons age 12 and up because at this age the food cost differs considerably by gender. Therefore, we allow the user to select age and, for persons age 12 and up, gender as well. And we map these selections to the corresponding USDA age range



and gender. Examples: A selection of age 3 is mapped to USDA age 2-3. A selection of age 12 male is mapped to USDA age 12-13 male, and a selection of age 15 female is mapped to USDA age 14-18 female. For adults, a selection of age 19-50 female is mapped to USDA age 19-50 female, and a selection of 51 + male is mapped to USDA 51-70 male. For simplicity, we disregard the USDA 71 + category because the monthly cost differs from the USDA 51-70 category by only a few dollars.

According to the USDA, the cost of food per person also differs by family size, due to variations in efficiencies of food preparation and usage. The USDA Cost of Food table shows per-person costs for a family of four, and it offers guidelines on adjusting these per-person costs for families of other sizes. For a family of one, increase the per-person cost by 20 percent. For a family of two increase by 10 percent, family of three increase by 5 percent, family of five decrease by five percent, family of six decrease by 10 percent.

#### **Example**

- User enters family of one female adult, age 19-50, one child age 3 and one male child age 12.
- Food cost = [female(age19–50)\*1.05]+[child(age 2–3)\*1.05]+[male child(age 12–13)\*1.05]

Finally, we adjust the total food cost for each family by county, using the groceries factor from the Cost of Living Index by County published by the Council for Community and Economic Research (C2ER), which compares county costs to US costs for a range of goods and services. Although the Cost of Living Index by County is reported by its authors to represent a baskets of costs typical for earners in the top 25th percentile of income, we have chosen, in the absence of other data sources for county-level cost indexing, to apply it as a county-level adjustment to our base food cost derived from the USDA Low-Cost Food Plan.

#### **Example**

- If user entry for a family in Aitkin County yields a monthly food cost of \$500 (resulting from USDA data and calculations as above) and if the COLI by County shows a groceries index of 98.6 for Aitkin County, then we multiply \$500 by 0.986, yielding a final monthly food cost of \$493.

#### **Data sources**

See Food Plans: Cost of Food, from USDA Center for Nutrition Policy and Promotion, at <http://www.cnpp.usda.gov/USDAFoodCost-Home.htm>.

Council for Community and Economic Research for county-to-US COLI comparisons at <http://www.c2er.org/>.

See Food Action and Research Center commentary on USDA food plans at [http://org2.democracyinaction.org/o/5118/p/salsa/web/common/public/content?content\\_item\\_KEY=10656](http://org2.democracyinaction.org/o/5118/p/salsa/web/common/public/content?content_item_KEY=10656).

#### **Experts**

Mark Lino, economist, Center for Nutrition Policy and Promotion, USDA.

## Housing

Housing costs are based on the US Department of Housing and Urban Development (HUD) Fair Market Rent Survey (FMR), the most widely accepted standard for the cost of basic needs housing in the US. According to HUD, the FMR is the "amount that would be needed to rent privately owned, decent, safe, and sanitary rental housing of a modest (non-luxury) nature with suitable amenities." FMRs are figured at the 40th percentile of rent. This cost includes utilities but does not include telephone, cable, satellite, or internet service, which is placed in our Other Necessities category.

Budget estimates are adjusted for differences in family composition. HUD's Housing Choice Voucher Program Guidebook specifies that "The dwelling unit must have a least one bedroom or living/sleeping room for every two persons. Other than very young children, children of opposite sex may not be required to occupy the same bedroom or living/sleeping room." We assume that for any two children of different genders, if at least one is age 12 or above, the two children must have separate bedrooms. For one or two adults without children, we use the one-bedroom rate. For families with one to two children, we use the two- or three-bedroom rate, depending on the age and gender rules above, and so on.

To adjust for inflation, we compare the "Table 11 Consumer Price Index for All Urban Consumers (CPI-U): Regions, by Expenditure category and Commodity and Service Group," Midwest Region, Housing expenditure category index for December, two calendar years prior to the February report, to the index for June, one calendar year prior to the February report.

The statewide and regional housing costs are calculated by averaging the FMR for the counties in that region, weighted by the number of children in that region according to the latest available Census figures.

### Data sources

See HUD FMR Survey at <http://www.huduser.org/portal/datasets/fmr.html> and select Schedule B FMR Tables or select County Level Data File.

For HUD guidelines see Housing Choice Voucher Program Guidebook, chapter 10, page 6, at [http://portal.hud.gov/hudportal/HUD?src=/program\\_offices/public\\_indian\\_housing/programs/hcv/forms/guidebook](http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/hcv/forms/guidebook).

For inflation adjustment, see Bureau of Labor Statistics, CPI Detailed Report (complete text and tables), "Table 11 Consumer Price Index for All Urban Consumers (CPI-U): Regions, by Expenditure category and Commodity and Service Group," Midwest Region, Housing expenditure category, at <http://www.bls.gov/cpi/tables.htm>.

Find children per county from US Bureau of the Census. See <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>.

### Experts

Leigh Rosenberg, research & outreach manager, Minnesota Housing Partnership.

## Health Care

Health Care costs include insurance premiums and out-of-pocket costs. Although health insurance may be acquired through various sources including employer or union group plans, private plans, and public plans, we have chosen to apply estimated costs of employer-union group insurance for the health care cost category. Because of major changes to the health care landscape resulting from implementation of the Affordable Care Act, delivered here in Minnesota chiefly via MN Sure, we cannot offer a reliable estimate of low- or moderate-cost private or public insurance for the 2014 Cost of Living Study. In coming years, we will incorporate data from MN Sure into our methodology to the extent feasible. But for the present, we feel that employer-union group insurance serves as a reasonable proxy for general health insurance costs.

### *Employer-union group insurance—employee contributions*

Our data for employee contributions are based on insurance from private-sector employers. Contributions data are from Table IX.A.2, “Average total premiums and employee contributions (in dollars) for private-sector establishments for areas within States” from the insurance component of the Medical Expenditure Panel Survey (MEPS), published by the Agency for Healthcare Research and Quality at the US Department of Health and Human Services.

We use the “single” employee contribution from MEPS Table IX.A.2 for one adult without children, “employee-plus-one contribution” for two adults without children or for one adult with one child, and “family contribution” for two adults with one or more children or for one adult with two or more children.

In MEPS IC Table IX.A.2, we apply data for “Minnesota, Minneapolis-St. Paul-Bloomington, MN portion” to counties which fall within that region and apply “Remainder of state” data to all other counties

Next we adjust the annual contribution to reflect average employee contribution amounts for workers in the second lowest quartile of wage earners. From the BLS Employee Benefits Survey, Table 13 Medical Care Benefits, Family Coverage, we browse the column “Employee contribution required: Average flat monthly employee contribution” and divide the amount in the row “Average wage: Second 25 percent” by the amount in the row “All workers” to find our Second Quartile Adjustment Factor. We multiply the selected MEPS IC Table IX.A.2 contribution by this factor.

For example, for a family of four in Aitkin County, from the MEPS IC Table IX.A.2 (2012), we apply the “Family contribution, Remainder of state” annual figure of \$3,213. If the BLS Employee Benefits Survey, Table 13 “Average wage: Second 25 percent” amount is \$446.41 and “All workers” is \$442.55, we calculate  $446.41 / 442.55 = 1.008$ .

We then apply the Second Quartile Adjustment Factor.

$$\$3,213 * 1.008 = \$3,238.70$$

The result is the annual employee contribution. Next we estimate out-of-pocket costs for employer-provided health insurance, to add these to the employee contribution.

### *Employer-union group insurance—out-of-pocket*

Out-of-pocket costs for employer-union group health insurance are from the MEPS Household Component, Full-Year Consolidated File, published by the Agency for Healthcare Research and Quality at the US Department of Health and Human Services.

To estimate out-of-pocket costs, we query the MEPS Household Component, Full-Year Consolidated File by applying the following variables and values. (Note that the 2-digit ending of variable names refers to year-end data. In the current release the year is 2011. The digits will change with each new release.)

Variable PRIEU11, value 1 to capture persons covered by employer- or union-sponsored health insurance.

Variable REGION11, value 2 to capture Midwest figures.

Variable TOTSLF11 to capture annual out-of-pocket spending by self or family.

Variable MSA11, value 0 to capture rural non-MSA figures and then value 1 to capture MSA figures.

Variable AGE11X, value 0-18 to capture figures for children and then values 19-50 and 51 plus to capture figures for adults.

Sorting each of the above three age groups by the two MSA11 values of MSA and Non-MSA yields an annual out-of-pocket dollar cost for each of six user categories: Age 0-18 in MSA, age 0-18 in non-MSA, age 19-50 in MSA, age 19-50 in Non-MSA, age 51 plus in MSA, age 51 plus in Non-MSA.

We apply the population weight variable PERWT11F and then calculate the median of expenditures for each of the six user categories.

We then apply the appropriate out-of-pocket cost (from the six above) to each hypothetical Cost of Living family.

We then add the employee contribution and out-of-pocket costs for an annual total health care cost.

To adjust for inflation, we compare the "Table 11 Consumer Price Index for All Urban Consumers (CPI-U): Regions, by Expenditure category and Commodity and Service Group," Midwest Region, Medical Care expenditure category index for December three calendar years before the February report to the index for June one calendar year before the February report and apply the percentage change to the final health care cost.

Finally, we divide by 12 to get the total monthly health care cost for each Cost of Living family with employer-provided health insurance.

#### **Data sources**

See U.S. Department of Health and Human Services (HHS). Medical Expenditure Panel Survey. MEPS HC-147: 2011 Full Year Consolidated Data File [microdata] at

[http://meps.ahrq.gov/mepsweb/data\\_stats/download\\_data\\_files\\_detail.jsp?cboPufNumber=HC-147](http://meps.ahrq.gov/mepsweb/data_stats/download_data_files_detail.jsp?cboPufNumber=HC-147).

See U.S. Department of Health and Human Services (HHS). Medical Expenditure Panel Survey. "Table IX.A.2 (2011), Average Total Premiums and Employee Contributions (in Dollars) for Private-Sector Establishments for Areas Within States: United States, 2011" at [http://meps.ahrq.gov/mepsweb/data\\_stats/summ\\_tables/insr/state/series\\_9/2011/tixa2.pdf](http://meps.ahrq.gov/mepsweb/data_stats/summ_tables/insr/state/series_9/2011/tixa2.pdf).

See Bureau of Labor Statistics (BLS). Employee Benefits Survey. "Table 13. Medical Care Benefits, Family Coverage: Employer and Employee Premiums by Employee Contribution Requirement, Private Industry Workers, National Compensation Survey, March 2012" at <http://www.bls.gov/ncs/ebs/benefits/2012/ownership/private/table09a.htm>.

For inflation adjustment, see Bureau of Labor Statistics, CPI Detailed Report (complete text and tables), "Table 11 Consumer Price Index for All Urban Consumers (CPI-U): Regions, by Expenditure category and Commodity and Service Group," Midwest Region, Medical Care expenditure category, at <http://www.bls.gov/cpi/tables.htm>. Compare Table 11 index for December three calendar years before the February report to the index for June one calendar year before the February report.

For Minnesota MSA's and counties see <https://apps.deed.state.mn.us/assets/lmi/areamap/msa.shtml#metro>.

### Experts

Ahna Minge, principal health policy planner, Minnesota Department of Health.

Stefan Gildemeister, economist, Minnesota Department of Health.

Shawn M. Welch, director, Reports & Forecasts Division, Minnesota Department of Human Services.

Jeff Rhoades, project officer, Medical Panel Expenditure Survey.

Elise Gould, director of health policy research, Economic Policy Institute.

## Transportation

Transportation figures are derived from the basic costs of owning and operating a car. These basic costs include those for commuting to work, conducting necessary family and personal business, and getting to and from school and place of worship. Costs for social and recreational uses are not included. Public transportation cost estimates are not used in our computations. According to the 2009 National Household Travel Survey, Table 9, 83.4 percent of annual person trips in the US are by private vehicle while only 1.9 percent are by public transportation. Even in large MSAs of 3 million or more persons (such as the Minneapolis-St Paul-Bloomington MSA), the share of trips by public transit is just 4 percent. The Cost of Living study does not assert whether a full-time worker should or should not use private or public transit but does assume that the cost of living for a full-time worker includes the ability to own and operate a car.

Our method captures considerable variation in miles traveled by county and by family composition and then applies a standard cost-per-mile measure, the IRS business travel allowance, to assign a dollar value to the cost of owning and operating a car.

To derive a total annual basic needs transportation cost, we use three key sources of data. From the American Community Survey (ACS), US Census, we find the mean travel time to work by county. From the National Household Travel Survey (NHTS), Federal Highway Administration, we find national average annual travel day vehicle miles of travel (travel day VMT) by household, the number of households reporting, and the share of travel day VMT by trip

purpose. We also find average commute speed by MSA size. From the US Internal Revenue Service (IRS) we find the dollar amount of the business travel allowance by mile.

Although the ACS mean travel time to work in minutes represents all modes of travel, we defend its use as a proxy for private vehicle travel by citing the 2009 NHTS Table 27 General Commute patterns by Mode of Transportation, which shows that the average commute travel time in minutes for private vehicles closely tracks the figure for all modes of travel in surveys from 1977 through 2009.

We also assume that the county-level variation in mean travel time to work is representative of variation in travel time for all trip purposes. We assume that if homes and workplaces are relatively dispersed or concentrated, then other trip destinations will be similarly dispersed or concentrated.

Using the NHTS online tool, first we query by Vehicle Miles of Travel (Travel Day VMT, annualized), VMT by Household, and Number of Workers per Household to get results for one- and two-worker households of various sizes. Then we query by Number of Households, VMT by Household, and Number of Workers per Household to get the number of households reporting. Then we query Vehicle Miles of Travel (Travel Day VMT, annualized) and VMT by Household/Trip Purpose to get share of VMT by trip purpose. From these we chart the Raw Annual VMT per Household for households with 1 to 2 adults, one or both of whom are working, with 0 to 4 children.

We then make two adjustments to the raw VMT. First, we found that the Raw Annual VMT increased from 1-child families to 4-child households but did not progress linearly for the 2-child and 3-child steps between these. To create a linear progression through all steps, for each of the three adult scenarios (1 adult working, 2 adults with 1 working, 2 adults with 2 working), we take the difference between the 1-child and 4-child Raw Annual VMT, then divide the difference by 3. We then add 1/3 the difference to the 1-child raw VMT to get the 2-child adjusted VMT and add 2/3 the difference to the 1-child raw VMT to get the 3-child adjusted VMT. This creates a linear progression for each step within the bounds of the 1-child and 4-child Raw Annual VMT.

Next, to approximate a basic-needs transportation figure, we multiply the above adjusted VMT, in each household composition, by 0.814, which represents the share of VMT remaining after we exclude trip purposes categorized as Social/Recreational, Meals, and Other Reason (based on the 2009 NHTS). This yields our Final Adjusted Annual VMT.

When assessing the cost of transportation for a given family composition, we start with the final adjusted Annual VMT per Household matching that family composition.

Next we create a County VMT Scaling Factor by which we will multiply each adjusted VMT. To create the County VMT Scaling Factor we first create a travel time scaling factor thus, data:

$$\begin{aligned} & \text{County Mean Travel Time to Work in Minutes (from 5-year ACS)} \\ & / \text{US National Average Mean Travel Time to Work in Minutes (from 5-year ACS)} \\ & = \text{Travel Time Scaling Factor} \end{aligned}$$

Then we create a travel speed scaling factor thus, from 5-year ACS data:

$$\begin{aligned} & \text{Average Commute Speed for Private Vehicles by MSA Size in miles per hour (from 2009 NHTS, Table 28)} \\ & / \text{US National Average Commute Speed for Private Vehicles in miles per hour (from 2009 NHTS, Table 27)} \\ & = \text{Travel Speed Scaling Factor} \end{aligned}$$

The travel time factor responds to the fact that if travel speeds are equal, higher travel time will be associated with a longer distance, while the travel speed factor responds to the fact that if travel times are equal, higher speed will be associated with a longer distance.

Next we multiply the Travel Time Scaling Factor by the Travel Speed Scaling Factor to yield the County VMT Scaling Factor.

We then multiply the adjusted VMT by the County VMT Scaling Factor to get our Family Annual VMT. And finally we multiply the Family Annual VMT by the IRS business travel allowance, to assign a dollar value to the cost of transportation.

We then divide the annual figure by 12, yielding the total monthly transportation cost.

#### **Data sources**

See US Census American Fact Finder at <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>.

See Federal Highway Administration's National Household Travel Survey at <http://www.fhwa.dot.gov/policyinformation/nhts.cfm>.

See IRS business travel allowance at <http://www.irs.gov/uac/2013-Standard-Mileage-Rates-Up-1-Cent-per-Mile-for-Business,-Medical-and-Moving>.

For Minnesota MSA's and counties see <https://apps.deed.state.mn.us/assets/lmi/areamap/msa.shtml#metro>.

#### **Experts**

John Wilson, economist, Minnesota Department of Transportation.  
Adella Santos, program manager, National Household Travel Survey.  
Brian McKenzie, US Census Bureau.

### **Child Care**

Child Care rates are provided by Child Care Aware Minnesota (CCA-MN). CCA-MN maintains an extensive, county-by-county database on child care providers drawn from a survey of all licensed child care centers and licensed in-home child care facilities in the state. Each report must specify the rates charged, whether full- or part-time, and the number as well as the ages of all clients served. From these reports, the CCA-MN then compiles a series of average childcare rates for each county, weighted by the percentage of part- and full-time care delivered and the proportional contribution of care center and in-home child care facilities to the total care delivered, for the following age ranges: Toddler age 1, Preschooler age 2-5, School-age 6-12. CCA-MN's database is updated annually, with updates typically available as of May each year.

In all two-parent families with one full-time worker, we assume that the non-working parent provides all child care services. Home care by relatives is not included because it is not an option consistently available to working parents.

CCA-MN rate data general will be current as of June one calendar year prior to the February report and so does not require adjustment for inflation.

Our state-wide and regional averages are compiled by weighting each of the component counties by the percentage of state population in the aggregated area, as revealed by Census figures.

#### **Data sources**

See MN data from Child Care Aware Minnesota at <http://childcareawaremn.org/families/paying-for-child-care/child-care-costs-in-minnesota>.

For inflation adjustment, see Bureau of Labor Statistics, CPI Detailed Report (complete text and tables), "Table 11 Consumer Price Index for All Urban Consumers (CPI-U): Regions, by Expenditure category and Commodity and Service Group," Midwest Region, All Items expenditure category, at <http://www.bls.gov/cpi/#tables>.

#### **Experts**

Angie Bowman, data manager, Child Care Aware Minnesota.

Deborah Schlick, project manager, Minnesota Department of Human Services.

#### **Other Necessities**

The cost of Other Necessities covers basic costs not covered by any of the other cost categories. These costs include apparel, personal care products and services, reading, education, and miscellaneous items. Excluded are costs for alcoholic beverages, entertainment, and tobacco products and smoking supplies.

We calculate these other costs as a proportion of food and housing costs, by the following method. Using the US Bureau of Labor Statistics' Consumer Expenditure Survey (CES), Table 1101, "Quintiles of income before taxes: Annual expenditure means, shares, standard errors, and coefficient of variation", we first average costs at the lowest and second lowest quintiles (thus capturing costs for the bottom 40 percent of the income distribution) for food and for housing. We then add together the food average and the housing average.

Second, we average costs at the lowest and second lowest quintiles for apparel and services, personal care products and services, reading, education, and miscellaneous products and services. Excluded are CES amounts for entertainment, tobacco products and smoking supplies, and alcoholic beverages. We then add together these "other necessities" averages. Then we divide the other necessities sum by the food and housing sum in order to find other necessities as a percentage of food and housing. As of the 2013 CES, showing 2012 data, other necessities was 16 percent of food and housing.

Finally we take the food category cost and housing category cost (see food methodology and housing methodology) for a given family composition in a given Minnesota county, add these together, and multiply the sum by the other necessities percentage (16 percent as of 2012 data) to yield the cost of other necessities.

#### **Data sources**

See US BLS Consumer Expenditure Survey at <http://www.bls.gov/cex/tables.htm>.

#### **Experts**

Elise Gould, lead on family budget calculator project, Economic Policy Institute.



## Taxes

The tax amount included in each family budget represents the net effect of taxes and tax credits. The taxes included are FICA payroll taxes (Social Security and Medicare) and federal and state income taxes. Property taxes are not included here because they are built into housing (rental) costs. State and local sales taxes are recognized as being passed on to the consumer in the cost of items already categorized.

Ordinarily one calculates tax liability by starting with the income to be taxed. The challenge in our case is to calculate an income sufficient to pay taxes and then pay for the remaining costs of living. To find our way to this target income, we will calculate, for each family, first a lower-bound income and tax rate and then an upper-bound income and tax rate. We will then calculate a weighted average of these two rates which will serve as our final tax rate. The family's lower bound income multiplied by (1 plus the tax rate) will yield an income sufficient to pay taxes and then pay for the remaining costs of living.

For the lower bound and upper bound, a simulated tax return is prepared for each family composition in each Minnesota county: 1 working adult without children; 2 working adults without children; 1 adult, working, with 1, 2, 3, and 4 children; 2 adults, 1 working, with 1, 2, 3, and 4 children; 2 adults, both working, with 1, 2, 3, and 4 children; 1 adult age 66 and up without children; 2 adults age 66 and up, 1 working, without children; 2 adults age 66 and up, both working, without children. (Total of 17 different family compositions, multiplied by 87 counties, equals 1,479 family tax returns. The total will be higher if we include tax returns based on user-selected child ages, because for example child age affects child costs for child care, food, and housing and therefore affects family income levels. The total will be higher still if we include one or more senior adult categories because senior ages can affect costs for food and health care.)

### *Lower bound income*

For each family, we calculate a lower bound income which is the sum of all other cost of living components (food, housing, transportation, child care, health care, other necessities). Assuming that each family will have some amount of tax liability even after exemptions and credits, this preliminary summed income will fall slightly short of needs because it excludes the amount necessary to pay the tax liability.

### *Upper bound income*

For each family, we then establish an upper bound income by multiplying the lower bound income by 1.25.

### *Simulated tax returns*

Next we prepare simulated tax returns first for the lower bound set of incomes and then for the upper bound set of incomes and input them (first the lower bound set and then the upper bound set) into the National Bureau of Economic Research's Internet TAXSIM Version 9.2 with ATRA to calculate tax rates and liabilities.

For each run, we create a spreadsheet of 22 columns representing the 22 fields required by TAXSIM. Our data entry in each row of the spreadsheet simulates each family's tax return. Fields not used in our calculations must be given an entry of "0" in order for the TAXSIM software to run.

The 22 fields (columns in the spreadsheet) are:

1. Case ID (arbitrary, but must be a non-negative numeric)
2. Tax year (4 digits)
3. State (SOI code for Minnesota is 24)

4. Marital status (1. single, 2. joint, 3. head of household, 8. dependent taxpayer)
5. Dependent exemptions (children under age 17)
6. Number of taxpayers over 65 years of age
7. Wage and salary income of taxpayer
8. Wage and salary income of spouse
9. Dividend income (Always enter zero)
10. Other property income (Always enter zero)
11. Taxable Pensions (Always enter zero)
12. Gross Social Security Benefits (Always enter zero)
13. Other non-taxable transfer income (Always enter zero)
14. Rent paid (used for calculating state property tax rebates)
15. Real estate taxes paid (used for calculating state property tax rebates)
16. Itemized deductions that are a preference for the Alternative Minimum Tax (Always enter zero)
17. Child care expenses
18. Unemployment compensation received (Always enter zero)
19. Number of dependents under age 17 (for child credit, not more than item 5)
20. Deductions not included in item 16 and not a preference for the AMT, including (on Schedule A for 2009)  
Deductible medical expenses in excess of 10% of AGI (only 1990+) (Always enter zero)
21. Short Term Capital Gains or losses (Always enter zero)
22. Long Term Capital Gains or losses (Always enter zero)

Once all fields are entered for all families, we then upload the spreadsheet in CSV file format to TAXSIM and select “calculate”.

For each tax record (each row of the spreadsheet), TAXSIM calculates the federal, state, and FICA tax liability. Because TAXSIM calculates FICA liability as the full 15.3 percent tax from both the employer and employee side, we cut this in half to more accurately represent the typical taxpayer.

*Calculation of a total tax rate for each family*

The TAXSIM run of lower bound incomes provides a lower bound tax liability for each family, and the run of upper bound incomes provides an upper bound tax liability. Each family, at this step, has two tax records: an upper bound and a lower bound record.

For each tax record, we add the federal, state, and FICA liability together. The result is the total tax liability for that record.

Next we calculate the average of the upper and lower bound tax liability for each family. The average serves as the family's final tax liability and is the annual Net Taxes cost. We divide by 12 to yield a monthly Net Taxes cost.

We then add the annual Net Taxes cost (final tax liability) to the post-tax family income to yield the family's annual Cost of Living income. This completes the final step of the Cost of Living income calculation.

### **Data sources**

See NBER's online TAXSIM calculator at <http://users.nber.org/~taxsim/taxsim-calc9/index.html>.

See Renter's Property Tax Refund guidelines at

[http://www.revenue.state.mn.us/individuals/prop\\_tax\\_refund/Pages/Renters\\_Property\\_Tax\\_Refund.aspx](http://www.revenue.state.mn.us/individuals/prop_tax_refund/Pages/Renters_Property_Tax_Refund.aspx).

### **Experts**

Daniel Feenberg, economist, creator of TAXSIM program, National Bureau of Economic Research.

Elise Gould, Hilary Wething, family budget calculator project, Economic Policy Institute.

## **Data Collection**

Data collection and processing are a mix of automatic and manual methods, depending on the automation available. Some collection and processing destined for automation may initially be performed manually until automating routines are written. Methods of data collection vary according to data formats offered by the various institutional sources.

Food Category data are manually inputted into an Excel spreadsheet from a USDA table in PDF. Adjustments by family-size and county are then calculated by routines written into the Cost of Living database.

Housing Category data are downloaded from HUD in an Excel spreadsheet. The CPI Housing expenditure indices for December two calendar years prior to the February report and June one calendar year prior to the February report are downloaded from the BLS in PDF and manually inputted into an Excel spreadsheet which calculates the percent change. The percent change is applied to the HUD data and the result is reformatted as CSV file for import into the Cost of Living database.

Health Care category data is collected from a range of downloaded PDF, Excel, and SPSS data files and processed both manually and through routines written into Excel spreadsheets and into the Cost of Living database. The CPI Medical Care expenditure indices for December two calendar years prior to the February report and June one calendar year prior to the February report are downloaded from the BLS in PDF and manually inputted into an Excel spreadsheet which calculates the percent change. The percent change is applied to the health care cost data and the result is reformatted as CSV file for import into the Cost of Living database.

Transportation Category data is downloaded chiefly in Excel spreadsheets and then formatted for import into the Cost of Living database and processed by routines written into the Excel spreadsheets or into the database.

Child Care Category data is downloaded in an Excel spreadsheet and then formatted for import into the Cost of Living database and processed by routines written into the Excel spreadsheets or into the database. We will adjust child care figures for inflation to June of the calendar year prior to the February report.

Other Necessities Category data are manually inputted into an Excel spreadsheet from a BLS table in PDF and processed by routines written into the spreadsheet. The spreadsheet is then imported into the Cost of Living database.

The Net Taxes Category data is exported into an Excel spreadsheet from the Cost of Living database (based on inputs from the other cost categories) and then uploaded as a CSV file to the online TAXSIM calculator in two runs. The output from TAXSIM is then manually cut-and-pasted whole into a plain text file and converted to an Excel spreadsheet and processed through routines written into the spreadsheet before conversion to CSV file for import into the Cost of Living database or is converted to a CSV file, imported into the Cost of Living database, and processed through routines written into the database.

Data collection is complete. Preparatory processing is designed and has been tested in the production of first results. Automated processing will be built into the database.

## Database

Development of a database is necessary in order to efficiently produce the full range of county and family-composition results for the Cost of Living Study.

Database tables will include:

- Persons (These are hypothetical persons categorized by gender and age range.)
- Counties
- Food Costs
- Housing Costs
- Health Care Costs
- Transportation Costs
- Child Care Costs
- Net Taxes Costs

Additional tables will include components of the above, such as the County Cost of Living Index for Food and the Commute Speed by MSA Size for Transportation.

The database build-out is anticipated to be completed as of March 31 and may be preceded, as needed, by manual production of key Cost of Living results.

## Web Interface

Although a web interface is not mandated by the Statute, LMI is preparing a Section 508-compliant Cost of Living Calculator web interface, to be housed on the DEED website, in order to facilitate use of the Cost of Living database. Typical users might include Workforce Service staff, Workforce Service business clients, Workforce Service job-seeker

clients, business owners generally, workers and job seekers generally, business associations, labor unions, nonprofit community organizations, economic development planners, and policymakers.

Users will be able to select geographic area and family composition. They will also be able to select download options to save the results.

Geographic options will include: All Minnesota, Greater Minnesota (Excludes Seven County Metro), Seven County Metro (Twin Cities Metro), County, Economic Development Region, or Planning Region.

Family composition will allow the user to select how many adults, how many adults working (at least one), age and gender of each adult, how many children, age and gender of each child.

For the purposes of economic analysis, it will be useful in future years to include options for selecting historical comparisons as well as current results.

The results page may include navigational links to related additional information from DEED LMI, grouped for user categories such as job seekers, employers, and planners or policymakers.

The information design and navigation design of the web interface is in progress and will be followed by visual design and implementation. Completion is anticipated as of April 15.

## Sample Calculations

The following nine county samples were hand-calculated to test the outcome of a constant family type across multiple counties. The family type is a family of four, two working parents, female age 35, male age 35, and two children, female age 12, male age 8, covered by employer-provided health insurance.

### **DEED-LMI Cost-of-Living Study**

Blue Earth County

The cost categories are food, housing, health care, transportation, child care, other necessities, and net taxes.

### **Specifications**

Family of four (with two working parents)

Adults: female age 35, male age 35

Children: female age 12, male age 8

Employer-provided health insurance

### **Family Wage Results per Specifications**

\$57,171 year

\$4,764 month

**Per Worker Wage Results per Specifications**

\$28,586 year

\$2,382 month

\$13.74 hour

**Detailed Results**

**Food**

**Cost of Food, USDA**

Female 19-50  
\$203.70 month

Male 19-50  
\$234.60

Female 12-13  
\$200.30

Male 8  
\$185.00

Total  
\$823.60

**County Food Factor, C2ER**

$\$823.60 \times 0.983$   
= \$809.60

**Final food cost**

\$9,715 year (809.60 \* 12)

\$810 month

## **Housing**

### **FMR Survey, HUD, 3-bedroom**

\$966 month

### **CPI-U, Table 11, Midwest Region, Housing**

206.989 index 2013-06 / 202.572 index 2012-12  
= 1.022

\$966 \* 1.022  
= \$987.25

### **Final housing cost**

\$11,847 year (987.25 \* 12)

\$987 month

### **Advance Calculation for Taxes: Renter's Share of Property Tax, MN Revenue**

\$11,847 \* 0.17  
= \$2,014

## **Health Care**

### **MEPS IC Table IX.A.2**

Family contribution (Minnesota, remainder of state)  
\$3,213 year

### **BLS Employee Benefits Survey, Table 13**

Second Quartile Factor  
1.008

\$3,213 \* 1.008  
= \$3,238.70 adjusted family contribution

## **MEPS HC Full-Year Consolidated File, Out-of-pocket costs**

Female 19-50

\$200 year

Male 19-50

\$200 year

Female 0-18

\$119 year

Male 0-18

\$119 year

Out-of-pocket family total

\$638 year

### **Health care subtotal (Contribution + out-of-pocket)**

\$3,876.70 year

## **CPI-U, Table 11, Midwest Region, Medical Care**

426.195 index 2013-06 / 404.215 index 2011-12

= 1.054

$\$3,876.70 \times 1.054$

= \$4,086.04

### **Final health care cost**

\$4,086 year

\$341 month

## **Transportation**

### **NHTS 2009**

Final Adjusted Annual VMT

27,693

## **ACS 2012, 5-year estimates, DP03, selected economic characteristics**



County Mean Travel Time to Work in Minutes

16.9

US Mean Travel Time to Work in Minutes

25.4

$16.9 / 25.4$

= 0.67 County Travel Time Factor

### **NHTS 2009, Tables 27 and 28**

Average Commute Speed for Private Vehicles in miles per hour (MSA under 250,000)

28.4

US Average Commute Speed for Private Vehicles in miles per hour

28.9

$28.4 / 28.9$

= 0.98 MSA Travel Speed Factor

$0.67 \text{ Time Factor} * 0.98 \text{ Speed Factor}$

= 0.66 County VMT Scaling Factor

$27,693 \text{ Final Adjusted Annual VMT} * 0.66 \text{ County VMT Scaling Factor}$

= 18,277.38 Family Annual VMT

### **IRS travel deduction standard mileage rate, effective 2013**

\$0.565 per mile

$18,277.38 * \$0.565$

= \$10,326.72

### **Final transportation cost**

\$10,327 year

\$861 month

### **Child Care**

### **Child Care Aware Minnesota**

Female 6-12  
\$115.38 week

Male 6-12  
\$115.38 week

$\$230.76 * 52 \text{ weeks}$   
 $= \$11,999.52$

**Final child care cost**

\$12,000 year

\$1,000 month

**Other Necessities**

**BLS CES Table 1101 Quintiles of income before taxes: Annual expenditure**

(Other necessities average of lowest and 2nd quintiles) as proportion of (food-at-home average of lowest and 2nd quintiles + housing average of lowest and 2nd quintiles)  
 $= 0.16 \text{ Other Necessities Factor}$

$(\$9,715 \text{ food} + \$11,847 \text{ housing}) * 0.16 \text{ Other Necessities Factor}$   
 $= \$3,449.92$

**Final other necessities cost**

\$3,450 year

\$288 month

**Cost of Living Subtotal**

Family  
\$51,425 year

Per Worker (Family / 2)  
\$25,713 year

## **Net Taxes**

### **Low bound income**

Family  
\$51,425 year

Per Worker  
\$25,713 year

### **High bound income (Low bound \* 1.25)**

Family  
\$64,281 year

Per Worker  
\$32,141 year

### **Annual tax liability**

Low bound  
\$3,797.60

High bound  
\$7,694.28

Average  
\$5,745.94

### **Final net taxes cost (Equals average liability)**

\$5,746 year

\$479 month

### **Cost of Living Total**

\$51,425 + 5,746 =

### **Family Wage**

\$57,171 year

**DEED-LMI Cost-of-Living Study**  
Clay County

The cost categories are food, housing, health care, transportation, child care, other necessities, and net taxes.

**Specifications**

Family of four (with two working parents)  
Adults: female age 35, male age 35  
Children: female age 12, male age 8  
Employer-provided health insurance

**Family Wage Results per Specifications**

\$58,569 year  
\$4,881 month

**Per Worker Wage Results per Specifications**

\$29,285 year  
\$2,440 month  
\$14.08 hour

**Detailed Results**

**Food**

**Cost of Food, USDA**

Female 19-50  
\$203.70 month  
Male 19-50

\$234.60

Female 12-13

\$200.30

Male 8

\$185.00

Total

\$823.60

### **County Food Factor, C2ER**

$\$823.60 \times 0.992$

$= \$817.01$

### **Final food cost**

\$9,804 year ( $817.01 \times 12$ )

\$817 month

### **Housing**

#### **FMR Survey, HUD, 3-bedroom**

\$1008 month

#### **CPI-U, Table 11, Midwest Region, Housing**

206.989 index 2013-06 / 202.572 index 2012-12

$= 1.022$

$\$1008 \times 1.022$

$= \$1,030.18$

### **Final housing cost**

\$12,362 year ( $1,030.18 \times 12$ )

\$1,030 month

### **Advance Calculation for Taxes: Renter's Share of Property Tax**

$$0.17 * \$12,362$$
$$= \$2,102$$

## Health Care

### MEPS IC Table IX.A.2

Family contribution (Minnesota, remainder of state)  
\$3,213 year

### BLS Employee Benefits Survey, Table 13

Second Quartile Factor  
1.008

$$\$3,213 * 1.008$$
$$= \$3,238.70 \text{ adjusted family contribution}$$

### MEPS HC Full-Year Consolidated File, Out-of-pocket costs

Female 19-50  
\$200 year

Male 19-50  
\$200 year

Female 0-18  
\$119 year

Male 0-18  
\$119 year

Out-of-pocket family total  
\$638 year

### Health care subtotal (Contribution + out-of-pocket)

\$3,876.70 year

### CPI-U, Table 11, Midwest Region, Medical Care

426.195 index 2013-06 / 404.215 index 2011-12

= 1.054

$\$3,876.70 \times 1.054$

= \$4,086.04

### **Final health care cost**

\$4,086 year

\$341 month

### **Transportation**

#### **NHTS 2009**

Final Adjusted Annual VMT

27,693

#### **ACS 2012, 5-year estimates, DP03, selected economic characteristics**

County Mean Travel Time to Work in Minutes

18.4

US Mean Travel Time to Work in Minutes

25.4

$18.4 / 25.4$

= 0.72 County Travel Time Factor

#### **NHTS 2009, Tables 27 and 28**

Average Commute Speed for Private Vehicles in miles per hour (MSA under 250,000)

28.4

US Average Commute Speed for Private Vehicles in miles per hour

28.9

$28.4 / 28.9$

= 0.98 MSA Travel Speed Factor

$0.72 \text{ Time Factor} \times 0.98 \text{ Speed Factor}$

= 0.71 County VMT Scaling Factor

27,693 Final Adjusted Annual VMT \* 0.71 County VMT Scaling Factor  
= 19,662.03 Family Annual VMT

**IRS travel deduction standard mileage rate, effective 2013**

\$0.565 per mile

19,662.03 \* \$0.565  
= \$11,109.05

**Final transportation cost**

\$11,109 year

\$926 month

**Child Care**

**Child Care Aware Minnesota**

Female 6-12  
\$111.21 week

Male 6-12  
\$111.21 week

\$222.42 \* 52 weeks  
= \$11,565.84

**Final child care cost**

\$11,566 year

\$964 month

**Other Necessities**

**BLS CES Table 1101 Quintiles of income before taxes: Annual expenditure**

(Other necessities average of lowest and 2nd quintiles) as proportion of (food-at-home average of lowest and 2nd quintiles + housing average of lowest and 2nd quintiles)



= 0.16 Other Necessities Factor

$(\$9,804 \text{ food} + 12,362 \text{ housing}) * 0.16 \text{ Other Necessities Factor}$   
= \$3,546.56

**Final other necessities cost**

\$3,547 year

\$296 month

**Cost of Living Subtotal**

Family  
\$52,474 year

Per Worker (Family / 2)  
\$26,237 year

**Net Taxes**

**Low bound**

Family  
\$52,474 year

Per Worker  
\$26,237 year

**High bound (Low bound \* 1.25)**

Family  
\$65,593

Per Worker  
\$32,796

**Tax liability**

Low bound  
\$4,066.04

High bound  
\$8,124.90

Average  
\$6,095.47

**Final net taxes cost (Equals average liability)**

\$6,095 year

\$508 month

**Cost of Living Total**

\$52,474 + 6,095 =

**Family Wage**

\$58,569 year

**DEED-LMI Cost-of-Living Study**  
Hennepin County

The cost categories are food, housing, health care, transportation, child care, other necessities, and net taxes.

**Specifications**

Family of four (with two working parents)  
Adults: female age 35, male age 35  
Children: female age 12, male age 8  
Employer-provided health insurance

**Family Wage Results per Specifications**

\$77,104 year

\$6,425 month

**Per Worker Wage Results per Specifications**

\$38,552 year

\$3,213 month

\$18.53 hour

**Detailed Results**

**Food**

**Cost of Food, USDA**

Female 19-50  
\$203.70 month

Male 19-50  
\$234.60

Female 12-13  
\$200.30

Male 8  
\$185.00

Total  
\$823.60

**County Food Factor, C2ER**

$\$823.60 \times 1.033$   
 $= \$850.78$

**Final food cost**

\$10,212 year ( $851 \times 12$ )

\$851 month

**Housing**

**FMR Survey, HUD, 3-bedroom**

\$1,332 month

**CPI-U, Table 11, Midwest Region, Housing**

206.989 index 2013-06 / 202.572 index 2012-12  
= 1.022

\$1,332 \* 1.022  
= \$1,361.30

**Final housing cost**

\$16,336 year (1,361.30 \* 12)

\$1,361 month

**Advance Calculation for Taxes: Renter's Share of Property Tax**

0.17 \* \$16,336  
= \$2,777

**Health Care**

**MEPS IC Table IX.A.2**

Family contribution (Minnesota, Mpls-St.Paul-Bloomington MSA)  
\$4,621 year

**BLS Employee Benefits Survey, Table 13**

Second Quartile Factor  
1.008

\$4,621 \* 1.008  
= \$4,657.97 adjusted family contribution

**MEPS HC Full-Year Consolidated File, Out-of-pocket costs**

Female 19-50  
\$200 year

Male 19-50  
\$200 year

Female 0-18  
\$119 year

Male 0-18  
\$119 year

Out-of-pocket family total  
\$638 year

**Health care subtotal**

\$5,295.97 year

**CPI-U, Table 11, Midwest Region, Medical Care**

426.195 index 2013-06 / 404.215 index 2011-12  
= 1.054

\$5,295.97 \* 1.054  
= \$5,581.95

**Final health care cost**

\$5,582 year

\$465 month

**Transportation**

**NHTS 2009**

Final Adjusted Annual VMT  
27,693

**ACS 2012, 5-year estimates, DP03, selected economic characteristics**

County Mean Travel Time to Work in Minutes  
22.6

US Mean Travel Time to Work in Minutes

25.4

22.6 / 25.4

= 0.89 County Travel Time Factor

### **NHTS 2009, Tables 27 and 28**

Average Commute Speed for Private Vehicles in miles per hour (MSA 3 million and up)

26.8

US Average Commute Speed for Private Vehicles in miles per hour

28.9

26.8 / 28.9

= 0.93 MSA Travel Speed Factor

0.89 Time Factor \* 0.93 Speed Factor

= 0.83 County VMT Scaling Factor

27,693 Final Adjusted Annual VMT \* 0.83 County VMT Scaling Factor

= 22,985.19 Family Annual VMT

### **IRS travel deduction standard mileage rate, effective 2013**

\$0.565 per mile

24,092.91 \* \$0.565

= \$12,986.63

### **Final transportation cost**

\$12,987 year

\$1,082 month

### **Child Care**

#### **Child Care Aware Minnesota**

Female 6-12

\$163.19 week

Male 6-12  
\$163.19 week

$\$326.38 * 52 \text{ weeks}$   
 $= \$16,971.76$

**Final child care cost**

\$16,972 year

\$1,414 month

**Other Necessities**

**BLS CES Table 1101 Quintiles of income before taxes: Annual expenditure**

(Other necessities average of lowest and 2nd quintiles) as proportion of (food-at-home average of lowest and 2nd quintiles + housing average of lowest and 2nd quintiles)  
 $= 0.16 \text{ Other Necessities Factor}$

$(\$10,212 \text{ food} + 16,336 \text{ housing}) * 0.16 \text{ Other Necessities Factor}$   
 $= \$4,247.68$

**Final other necessities cost**

\$4,248 year

\$354 month

**Cost of Living Subtotal**

Family  
\$66,337 year

Per Worker  
\$33,169 year (Family / 2)

**Net Taxes**

**Low bound**

Family  
\$66,337

Per Worker  
\$33,169

**High bound (Low bound \* 1.25)**

Family  
\$82,921

Per Worker  
\$41,461

**Tax liability**

Low bound  
\$8,445.57

High bound  
\$13,089.04

Average  
\$10,767.31

**Final net taxes cost (Equals average liability)**

\$10,767 year

\$ 897 month

**Cost of Living Total**

\$66,337 + 10,767 =

**Family Wage**

\$77,104 year

**DEED-LMI Cost-of-Living Study**



Houston County

The cost categories are food, housing, health care, transportation, child care, other necessities, and net taxes.

**Specifications**

Family of four (with two working parents)  
Adults: female age 35, male age 35  
Children: female age 12, male age 8  
Employer-provided health insurance

**Family Wage Results per Specifications**

\$60,212 year

\$5,018 month

**Per Worker Wage Results per Specifications**

\$30,106 year

\$2,509 month

\$14.47 hour

**Detailed Results**

**Food**

**Cost of Food, USDA**

Female 19-50  
\$203.70 month

Male 19-50  
\$234.60

Female 12-13  
\$200.30

Male 8  
\$185.00

Total  
\$823.60

#### **County Food Factor, C2ER**

$\$823.60 * 0.991$   
 $= \$816.19$

#### **Final food cost**

\$9,794 year ( $816.19 * 12$ )

\$816 month

#### **Housing**

##### **FMR Survey, HUD, 3-bedroom**

\$972 month

##### **CPI-U, Table 11, Midwest Region, Housing**

$206.989 \text{ index } 2013-06 / 202.572 \text{ index } 2012-12$   
 $= 1.022$

$\$972 * 1.022$   
 $= \$993.38$

#### **Final housing cost**

\$11,921 year ( $993.38 * 12$ )

\$993 month

#### **Advance Calculation for Taxes: Renter's Share of Property Tax, MN Revenue**

$\$11,921 * 0.17$   
 $= \$2,027$

## Health Care

### MEPS IC Table IX.A.2

Family contribution (Minnesota, remainder of state)

\$3,213 year

### BLS Employee Benefits Survey, Table 13

Second Quartile Factor

1.008

$\$3,213 \times 1.008$

= \$3,238.70 adjusted family contribution

### MEPS HC Full-Year Consolidated File, Out-of-pocket costs

Female 19-50

\$200 year

Male 19-50

\$200 year

Female 0-18

\$119 year

Male 0-18

\$119 year

Out-of-pocket family total

\$638 year

### Health care subtotal (Contribution + out-of-pocket)

\$3,876.70 year

### CPI-U, Table 11, Midwest Region, Medical Care

426.195 index 2013-06 / 404.215 index 2011-12

= 1.054

$\$3,876.70 \times 1.054$

= \$4,086.04

### **Final health care cost**

\$4,086 year

\$341 month

### **Transportation**

#### **NHTS 2009**

Final Adjusted Annual VMT

27,693

#### **ACS 2012, 5-year estimates, DP03, selected economic characteristics**

County Mean Travel Time to Work in Minutes

21.1

US Mean Travel Time to Work in Minutes

25.4

$21.1 / 25.4$

= 0.83 County Travel Time Factor

#### **NHTS 2009, Tables 27 and 28**

Average Commute Speed for Private Vehicles in miles per hour (MSA under 250,000)

28.4

US Average Commute Speed for Private Vehicles in miles per hour

28.9

$28.4 / 28.9$

= 0.98 MSA Travel Speed Factor

$0.83 \text{ Time Factor} * 0.98 \text{ Speed Factor}$

= 0.81 County VMT Scaling Factor

$27,693 \text{ Final Adjusted Annual VMT} * 0.81 \text{ County VMT Scaling Factor}$

= 22,431.33 Family Annual VMT

### **IRS travel deduction standard mileage rate, effective 2013**

\$0.565 per mile

$18,277.38 * \$0.565$   
 $= \$12,673.70$

**Final transportation cost**

\$12,674 year

\$1,056 month

**Child Care**

**Child Care Aware Minnesota**

Female 6-12  
\$113.04 week

Male 6-12  
\$113.04 week

$\$230.76 * 52 \text{ weeks}$   
 $= \$11,756.16$

**Final child care cost**

\$11,756 year

\$980 month

**Other Necessities**

**BLS CES Table 1101 Quintiles of income before taxes: Annual expenditure**

(Other necessities average of lowest and 2nd quintiles) as proportion of (food-at-home average of lowest and 2nd quintiles + housing average of lowest and 2nd quintiles)  
 $= 0.16$  Other Necessities Factor

$(\$9,794 \text{ food} + 11,921 \text{ housing}) * 0.16 \text{ Other Necessities Factor}$   
 $= \$ 3,474.40$

**Final other necessities cost**

\$3,474 year

\$290 month

**Cost of Living Subtotal**

Family  
\$53,705 year

Per Worker (Family / 2)  
\$26,853 year

**Net Taxes**

**Low bound income**

Family  
\$53,705 year

Per Worker  
\$26,853 year

**High bound income (Low bound \* 1.25)**

Family  
\$67,131 year

Per Worker  
\$33,566 year

**Annual tax liability**

Low bound  
\$4,497.94

High bound  
\$8,515.85

Average  
\$6,506.90

### **Final net taxes cost (Equals average liability)**

\$6,507 year

\$542 month

### **Cost of Living Total**

\$53,705 + 6,507 =

### **Family Wage**

\$60,212 year

### **DEED-LMI Cost-of-Living Study**

Olmsted County

The cost categories are food, housing, health care, transportation, child care, other necessities, and net taxes.

### **Specifications**

Family of four (with two working parents)

Adults: female age 35, male age 35

Children: female age 12, male age 8

Employer-provided health insurance

### **Family Wage Results per Specifications**

\$63,587 year

\$5,299 month

### **Per Worker Wage Results per Specifications**

\$31,794 year

\$2,650 month

\$15.29 hour

Detailed Results

Food

Cost of Food, USDA

Female 19-50  
\$203.70 month

Male 19-50  
\$234.60

Female 12-13  
\$200.30

Male 8  
\$185.00

Total  
\$823.60

County Food Factor, C2ER

$\$823.60 \times 0.995$   
= \$819.48

Final food cost

\$9,834 year ( $819.48 \times 12$ )

\$820 month

Housing

FMR Survey, HUD, 3-bedroom

\$1,156 month

CPI-U, Table 11, Midwest Region, Housing



206.989 index 2013-06 / 202.572 index 2012-12  
= 1.022

\$1,156 \* 1.022  
= \$1,181.43

### **Final housing cost**

\$14,177 year (1,181.43 \* 12)

\$1,181 month

### **Advance Calculation for Taxes: Renter's Share of Property Tax, MN Revenue**

\$14,177 \* 0.17  
= \$2,410

### **Health Care**

#### **MEPS IC Table IX.A.2**

Family contribution (Minnesota, remainder of state)  
\$3,213

#### **BLS Employee Benefits Survey, Table 13**

Second Quartile Factor  
1.008

\$3,213 \* 1.008  
= \$3,238.70 adjusted family contribution

### **MEPS HC Full-Year Consolidated File, Out-of-pocket costs**

Female 19-50  
\$200 year

Male 19-50  
\$200 year

Female 0-18  
\$119 year

Male 0-18

\$119 year

Out-of-pocket family total

\$638 year

**Health care subtotal (Contribution + out-of-pocket)**

\$3,876.70 year

**CPI-U, Table 11, Midwest Region, Medical Care**

426.195 index 2013-06 / 404.215 index 2011-12

= 1.054

\$3,876.70 \* 1.054

= \$4,086.04

**Final health care cost**

\$4,086 year

\$341 month

**Transportation**

**NHTS 2009**

Final Adjusted Annual VMT

27,693

**ACS 2012, 5-year estimates, DP03, selected economic characteristics**

Olmsted County Mean Travel Time to Work in Minutes

17.3

US Mean Travel Time to Work in Minutes

25.4

17.3 / 25.4

= 0.68 County Travel Time Factor

## **NHTS 2009, Tables 27 and 28**

Average Commute Speed for Private Vehicles in miles per hour (MSA under 250,000)

28.4

US Average Commute Speed for Private Vehicles in miles per hour

28.9

$28.4 / 28.9$

= 0.98 MSA Travel Speed Factor

0.68 Time Factor \* 0.98 Speed Factor

= 0.67 County VMT Scaling Factor

27,693 Final Adjusted Annual VMT \* 0.67 County VMT Scaling Factor

= 18,554.31 Family Annual VMT

## **IRS travel deduction standard mileage rate, effective 2013**

\$0.565 per mile

$18,554.31 * \$0.565$

= \$10,483.19

## **Final transportation cost**

\$10,483 year

\$874 month

## **Child Care**

### **Child Care Aware Minnesota**

Female 6-12

\$134.68 week

Male 6-12

\$134.68 week

$\$269.36 * 52 \text{ weeks}$

= \$14,006.72

### **Final child care cost**

\$14,006 year

\$1,167 month

### **Other Necessities**

#### **BLS CES Table 1101 Quintiles of income before taxes: Annual expenditure**

(Other necessities average of lowest and 2nd quintiles) as proportion of (food-at-home average of lowest and 2nd quintiles + housing average of lowest and 2nd quintiles)  
= 0.16 Other Necessities Factor

(\$9,834 food + 14,177 housing) \* 0.16 Other Necessities Factor  
= \$3,841.76

### **Final other necessities cost**

\$3,842 year

\$320 month

### **Cost of Living Subtotal**

Family  
\$56,428 year

Per Worker (Family / 2)  
\$28,214 year

### **Net Taxes**

#### **Low bound income**

Family  
\$56,428 year

Per Worker  
\$28,214 year

### High bound income (Low bound \* 1.25)

Family  
\$70,535

Per Worker  
\$35,268

### Tax Liability

Low bound  
\$5,114.16

High bound  
\$9,203.31

Average  
\$7,158.74

### Final net taxes cost (Equals average liability)

\$7,159 year

\$597 month

### Cost of Living Total

\$56,428 + 7,159 =

### Family Wage

\$63,587 year

### DEED-LMI Cost-of-Living Study

Polk County

The cost categories are food, housing, health care, transportation, child care, other necessities, and net taxes.

### Specifications

Family of four (with two working parents)  
Adults: female age 35, male age 35  
Children: female age 12, male age 8  
Employer-provided health insurance

**Family Wage Results per Specifications**

\$57,360 year

\$4,780 month

**Per Worker Wage Results per Specifications**

\$28,680 year

\$2,390 month

\$13.79 hour

**Detailed Results**

**Food**

**Cost of Food, USDA**

Female 19-50  
\$203.70 month

Male 19-50  
\$234.60

Female 12-13  
\$200.30

Male 8  
\$185.00

Total  
\$823.60

**County Food Factor, C2ER**

$$\begin{aligned} & \$823.60 * 1.001 \\ & = \$824.42 \end{aligned}$$

#### **Final food cost**

$$\$9,893 \text{ year } (824.42 * 12)$$

$$\$824 \text{ month}$$

#### **Housing**

##### **FMR Survey, HUD, 3-bedroom**

$$\$981 \text{ month}$$

##### **CPI-U, Table 11, Midwest Region, Housing**

$$\begin{aligned} & 206.989 \text{ index } 2013-06 / 202.572 \text{ index } 2012-12 \\ & = 1.022 \end{aligned}$$

$$\begin{aligned} & \$981 * 1.022 \\ & = \$1,002.58 \end{aligned}$$

#### **Final housing cost**

$$\$12,031 \text{ year } (1,002.58 * 12)$$

$$\$1,003 \text{ month}$$

#### **Advance Calculation for Taxes: Renter's Share of Property Tax, MN Revenue**

$$\begin{aligned} & \$12,031 * 0.17 \\ & = \$2,045 \end{aligned}$$

#### **Health Care**

##### **MEPS IC Table IX.A.2**

$$\begin{aligned} & \text{Family contribution (Minnesota, remainder of state)} \\ & \$3,213 \end{aligned}$$

### **BLS Employee Benefits Survey, Table 13**

Second Quartile Factor

1.008

$\$3,213 * 1.008$

= \$3,238.70 adjusted family contribution

### **MEPS HC Full-Year Consolidated File, Out-of-pocket costs**

Female 19-50

\$200 year

Male 19-50

\$200 year

Female 0-18

\$119 year

Male 0-18

\$119 year

Out-of-pocket family total

\$638 year

### **Health care subtotal (Contribution + out-of-pocket)**

\$3,876.70 year

### **CPI-U, Table 11, Midwest Region, Medical Care**

426.195 index 2013-06 / 404.215 index 2011-12

= 1.054

$\$3,876.70 * 1.054$

= \$4,086.04

### **Final health care cost**

\$4,086 year

\$341 month



## **Transportation**

### **NHTS 2009**

Final Adjusted Annual VMT  
27,693

### **ACS 2012, 5-year estimates, DP03, selected economic characteristics**

County Mean Travel Time to Work in Minutes  
17.3

US Mean Travel Time to Work in Minutes  
25.4

$17.3 / 25.4$   
= 0.68 County Travel Time Factor

### **NHTS 2009, Tables 27 and 28**

Average Commute Speed for Private Vehicles in miles per hour (MSA under 250,000)  
28.4

US Average Commute Speed for Private Vehicles in miles per hour  
28.9

$28.4 / 28.9$   
= 0.98 MSA Travel Speed Factor

$0.68 \text{ Time Factor} * 0.98 \text{ Speed Factor}$   
= 0.67 County VMT Scaling Factor

$27,693 \text{ Final Adjusted Annual VMT} * 0.67 \text{ County VMT Scaling Factor}$   
= 18,554.31 Family Annual VMT

### **IRS travel deduction standard mileage rate, effective 2013**

\$0.565 per mile

$18,554.31 * \$0.565$   
= \$10,483.19

### **Final transportation cost**

\$10,483 year

\$874 month

## Child Care

### Child Care Aware Minnesota

Female 6-12

\$111.35 week

Male 6-12

\$111.35 week

$\$222.70 * 52 \text{ weeks}$

$= \$11,580.40$

### Final child care cost

\$11,580 year

\$965 month

## Other Necessities

### BLS CES Table 1101 Quintiles of income before taxes: Annual expenditure

(Other necessities average of lowest and 2nd quintiles) as proportion of (food-at-home average of lowest and 2nd quintiles + housing average of lowest and 2nd quintiles)

$= 0.16 \text{ Other Necessities Factor}$

$(\$9,893 \text{ food} + 12,031 \text{ housing}) * 0.16 \text{ Other Necessities Factor}$

$= \$3,507.84$

### Final other necessities cost

\$3,508 year

\$292 month

### **Cost of Living Subtotal**

Family  
\$51,581 year

Per Worker (Family / 2)  
\$25,791 year

### **Net Taxes**

#### **Low bound income**

Family  
\$51,581 year

Per Worker  
\$25,791 year

#### **High bound income (Low bound \* 1.25)**

Family  
\$64,476

Per Worker  
\$32,238

### **Tax Liability**

Low bound  
\$3,821.56

High bound  
\$7,735.87

Average  
\$5,778.72

#### **Final net taxes cost (Equals average liability)**

\$5,779 year

\$482 month

**Cost of Living Total**

\$51,581 + 5,779 =

**Family Wage**

\$57,360 year

**DEED-LMI Cost-of-Living Study**  
Ramsey County

The cost categories are food, housing, health care, transportation, child care, other necessities, and net taxes.

**Specifications**

Family of four (with two working parents)  
Adults: female age 35, male age 35  
Children: female age 12, male age 8  
Employer-provided health insurance

**Family Wage Results per Specifications**

\$76,027 year

\$6,336 month

**Per Worker Wage Results per Specifications**

\$38,014 year

\$3,168 month

\$18.28 hour

**Detailed Results**

**Food**

**Cost of Food, USDA**

Female 19-50  
\$203.70 month

Male 19-50  
\$234.60

Female 12-13  
\$200.30

Male 8  
\$185.00

Total  
\$823.60

**County Food Factor, C2ER**

$\$823.60 \times 1.042$   
 $= \$858.19$

**Final food cost**

$\$10,298 \text{ year } (858.19 \times 12)$

\$858 month

**Housing**

**FMR Survey, HUD, 3-bedroom**

\$1,332 month

**CPI-U, Table 11, Midwest Region, Housing**

$206.989 \text{ index } 2013-06 / 202.572 \text{ index } 2012-12$   
 $= 1.022$

$\$1,332 \times 1.022$   
 $= \$1,361.30$

**Final housing cost**

\$16,336 year ( $1,361.30 * 12$ )

\$1,361 month

#### **Advance Calculation for Taxes: Renter's Share of Property Tax**

$0.17 * \$16,336$   
 $= \$2,777$

#### **Health Care**

##### **MEPS IC Table IX.A.2**

Family contribution (Minnesota, Mpls-St.Paul-Bloomington MSA)  
\$4,621 year

##### **BLS Employee Benefits Survey, Table 13**

Second Quartile Factor  
1.008

$\$4,621 * 1.008$   
 $= \$4,657.97$  adjusted family contribution

##### **MEPS HC Full-Year Consolidated File, Out-of-pocket costs**

Female 19-50  
\$200 year

Male 19-50  
\$200 year

Female 0-18  
\$119 year

Male 0-18  
\$119 year

Out-of-pocket family total  
\$638 year

#### **Health care subtotal**

\$5,295.97 year

**CPI-U, Table 11, Midwest Region, Medical Care**

426.195 index 2013-06 / 404.215 index 2011-12  
= 1.054

\$5,295.97 \* 1.054  
= \$5,581.95

**Final health care cost**

\$5,582 year

\$465 month

**Transportation**

**NHTS 2009**

Final Adjusted Annual VMT  
27,693

**ACS 2012, 5-year estimates, DP03, selected economic characteristics**

County Mean Travel Time to Work in Minutes  
22.4

US Mean Travel Time to Work in Minutes  
25.4

22.4 / 25.4  
= 0.88 County Travel Time Factor

**NHTS 2009, Tables 27 and 28**

Average Commute Speed for Private Vehicles in miles per hour (MSA 3 million and up)  
26.8

US Average Commute Speed for Private Vehicles in miles per hour  
28.9

26.8 / 28.9

= 0.93 County Travel Speed Factor

0.88 Time Factor \* 0.93 Speed Factor

= 0.87 County VMT Scaling Factor

27,693 Final Adjusted Annual VMT \* 0.87 County VMT Scaling Factor

= 24,092.91 Family Annual VMT

### **IRS travel deduction standard mileage rate, effective 2013**

\$0.565 per mile

24,092.91 \* \$0.565

= \$13,612.49

### **Final transportation cost**

\$13,612 year

\$1,134 month

### **Child Care**

#### **Child Care Aware Minnesota**

Female 6-12

\$149.71 week

Male 6-12

\$149.71 week

\$299.42 \* 52 weeks

= \$15,569.84

### **Final child care cost**

\$15,570 year

\$1,298 month

### **Other Necessities**



BLS CES Table 1101 Quintiles of income before taxes: Annual expenditure

(Other necessities average of lowest and 2nd quintiles) as proportion of (food-at-home average of lowest and 2nd quintiles + housing average of lowest and 2nd quintiles)  
= 0.16 Other Necessities Factor

$(\$10,298 \text{ food} + 16,336 \text{ housing}) * 0.16 \text{ Other Necessities Factor}$   
= \$4261.44

**Final other necessities cost**

\$4,261 year

\$355 month

**Cost of Living Subtotal**

Family  
\$65,659 year

Per Worker (Family / 2)  
\$32,830 year

**Net Taxes**

**Low bound**

Family  
\$65,659

Per Worker  
\$32,830

**High bound (Low bound \* 1.25)**

Family  
\$82,074

Per Worker  
\$41,037

### **Tax liability**

Low bound

\$8,154.13

High bound

\$12,582.23

Average

\$10,368.18

### **Final net taxes cost (Equals average liability)**

\$10,368 year

\$864 month

### **Cost of Living Total**

\$65,659 + 10,368 =

### **Family Wage**

\$76,027 year

### **DEED-LMI Cost-of-Living Study**

Stearns County

The cost categories are food, housing, health care, transportation, child care, other necessities, and net taxes.

### **Specifications**

Family of four (with two working parents)

Adults: female age 35, male age 35

Children: female age 12, male age 8

Employer-provided health insurance

### Family Wage Results per Specifications

\$58,780 year

\$4,898 month

### Per Worker Wage Results per Specifications

\$29,390 year

\$2,449 month

\$14.13 hour

### Detailed Results

#### Food

#### Cost of Food, USDA

Female 19-50  
\$203.70 month

Male 19-50  
\$234.60

Female 12-13  
\$200.30

Male 8  
\$185.00

Total  
\$823.60

#### County Food Factor, C2ER

$\$823.60 \times 0.985$   
= \$811.25

#### Final food cost

\$9,732 year (811 \* 12)

\$811 month

## **Housing**

### **FMR Survey, HUD, 3-bedroom**

\$993 month

### **CPI-U, Table 11, Midwest Region, Housing**

206.989 index 2013-06 / 202.572 index 2012-12  
= 1.022

\$993 \* 1.022  
= \$1,014.85

### **Final housing cost**

\$12,178 year (1,014.85 \* 12)

\$1,015 month

### **Advance Calculation for Taxes: Renter's Share of Property Tax**

0.17 \* \$12,178  
= \$2,070

## **Health Care**

### **MEPS IC Table IX.A.2**

Family contribution (Minnesota, remainder of state)  
\$3,213

### **BLS Employee Benefits Survey, Table 13**

Second Quartile Factor  
1.008

\$3,213 \* 1.008

= \$3,238.70 adjusted family contribution

**MEPS HC Full-Year Consolidated File, Out-of-pocket costs**

Female 19-50  
\$200 year

Male 19-50  
\$200 year

Female 0-18  
\$119 year

Male 0-18  
\$119 year

Out-of-pocket family total  
\$638 year

**Health care subtotal (Contribution + out-of-pocket)**

\$3,876.70 year

**CPI-U, Table 11, Midwest Region, Medical Care**

426.195 index 2013-06 / 404.215 index 2011-12  
= 1.054

\$3,876.70 \* 1.054  
= \$4,086.04

**Final health care cost**

\$4,086 year

\$341 month

**Transportation**

**NHTS 2009**

Final Adjusted Annual VMT

27,693

**ACS 2012, 5-year estimates, DP03, selected economic characteristics**

County Mean Travel Time to Work in Minutes

20.8

US Mean Travel Time to Work in Minutes

25.4

$20.8 / 25.4$

= 0.82 County Travel Time Scaling Factor

**NHTS 2009, Tables 27 and 28**

Average Commute Speed for Private Vehicles in miles per hour (MSA under 250,000)

28.4

US Average Commute Speed for Private Vehicles in miles per hour

28.9

$28.4 / 28.9$

= 0.98 MSA Travel Speed Factor

$0.82 \text{ Time Factor} * 0.98 \text{ Speed Factor}$

= 0.80 County VMT Scaling Factor

$27,693 \text{ Final Adjusted Annual VMT} * 0.80 \text{ County VMT Scaling Factor}$

= 22,154.40 Family Annual VMT

**IRS travel deduction standard mileage rate, effective 2013**

\$0.565 per mile

$22,154.40 * \$0.565$

= \$12,517.24

**Final transportation cost**

\$12,517 year

\$1,043 month

## **Child Care**

### **Child Care Aware Minnesota**

Female 6-12  
\$101.90 week

Male 6-12  
\$101.90 week

\$203.80 \* 52 weeks  
= \$10,597.60

### **Final child care cost**

\$10,598 year

\$883 month

## **Other Necessities**

### **BLS CES Table 1101 Quintiles of income before taxes: Annual expenditure**

(Other necessities average of lowest and 2nd quintiles) as proportion of (food-at-home average of lowest and 2nd quintiles + housing average of lowest and 2nd quintiles)  
= 0.16 Other Necessities Factor

(\$9,732 food + 12,178 housing) \* 0.16 Other Necessities Factor  
= \$3,505.60

### **Final other necessities cost**

\$3,506 year

\$292 month

## **Cost of Living Subtotal**

Family  
\$52,617 year

Per Worker (Family / 2)

\$26,301 year

### **Net Taxes**

#### **Low bound wage**

Family  
\$52,617

Per Worker  
\$26,301

#### **High bound wage (Low bound \* 1.25)**

Family  
\$65,771

Per Worker  
\$32,886

### **Tax Liability**

Low bound  
\$4,123.97

High bound  
\$8,202.27

Average  
\$6,163.12

#### **Final net taxes cost (Equals average liability)**

\$6,163 year

\$514 month

### **Cost of Living Total**

\$52,617 + 6,163 =

### **Family Wage**



\$58,780 year

**DEED-LMI Cost-of-Living Study**  
St. Louis County

The cost categories are food, housing, health care, transportation, child care, other necessities, and net taxes.

**Specifications**

Family of four (with two working parents)  
Adults: female age 35, male age 35  
Children: female age 12, male age 8  
Employer-provided health insurance

**Family Wage Results per Specifications**

\$60,017 year

\$5,001 month

**Per Worker Wage Results per Specifications**

\$30,009 year

\$2,501 month

\$14.43 hour

**Detailed Results**

**Food**

**Cost of Food, USDA**

Female 19-50  
\$203.70 month

Male 19-50

\$234.60

Female 12-13

\$200.30

Male 8

\$185.00

Total

\$823.60

### **County Food Factor, C2ER**

$\$823.60 \times 0.988$

= \$813.72

### **Final food cost**

\$9,765 year ( $813.72 \times 12$ )

\$814 month

### **Housing**

#### **FMR Survey, HUD, 3-bedroom**

\$902 month

#### **CPI-U, Table 11, Midwest Region, Housing**

206.989 index 2013-06 / 202.572 index 2012-12

= 1.022

$\$902 \times 1.022$

= \$921.84

### **Final housing cost**

\$11,062 year ( $921.84 \times 12$ )

\$922 month

### **Advance Calculation for Taxes: Renter's Share of Property Tax**

$$0.17 * \$11,062 \\ = \$1,881$$

### **Health Care**

#### **MEPS IC Table IX.A.2**

Family contribution (Minnesota, remainder of state)  
\$3,213 year

#### **BLS Employee Benefits Survey, Table 13**

Second Quartile Factor  
1.008

$$\$3,213 * 1.008 \\ = \$3,238.70 \text{ adjusted family contribution}$$

#### **MEPS HC Full-Year Consolidated File, Out-of-pocket costs**

Female 19-50  
\$200 year

Male 19-50  
\$200 year

Female 0-18  
\$119 year

Male 0-18  
\$119 year

Out-of-pocket family total  
\$638 year

#### **Health care subtotal (Contribution + out-of-pocket)**

\$3,876.70 year

#### **CPI-U, Table 11, Midwest Region, Medical Care**

426.195 index 2013-06 / 404.215 index 2011-12  
= 1.054

\$3,876.70 \* 1.054  
= \$4,086.04

#### **Final health care cost**

\$4,086 year

\$341 month

#### **Transportation**

##### **NHTS 2009**

Final Adjusted Annual VMT  
27,693

##### **ACS 2012, 5-year estimates, DP03, selected economic characteristics**

County Mean Travel Time to Work in Minutes  
19.4

US Mean Travel Time to Work in Minutes  
25.4

19.4 / 25.4  
= 0.76 County Travel Time Factor

##### **NHTS 2009, Tables 27 and 28**

Average Commute Speed for Private Vehicles in miles per hour (MSA 250,000 to 499,000)  
28.4

US Average Commute Speed for Private Vehicles in miles per hour  
28.9

28.4 / 28.9  
= 0.98 MSA Travel Speed Factor

$0.76 * 0.98$   
= 0.74 County VMT Scaling Factor

27,693 Final Adjusted Annual VMT \* 0.74 County VMT Scaling Factor  
= 20,492.82 Family Annual VMT

**IRS travel deduction standard mileage rate, effective 2013**

\$0.565 per mile

$20,492.82 * \$0.565$   
= \$11,578.44

**Final transportation cost**

\$11,578 year

\$965 month

**Child Care**

**Child Care Aware Minnesota**

Female 6-12  
\$131.53 week

Male 6-12  
\$131.53 week

$\$263.06 * 52 \text{ weeks}$   
= \$13,679.12

**Final child care cost**

\$13,679 year

\$1,140 month

**Other Necessities**

**BLS CES Table 1101 Quintiles of income before taxes: Annual expenditure**

(Other necessities average of lowest and 2nd quintiles) as proportion of (food-at-home average of lowest and 2nd quintiles + housing average of lowest and 2nd quintiles)  
= 0.16 Other Necessities Factor

(\$9,765 food + 11,062 housing) \* 0.16 Other Necessities Factor  
= \$3,332.32

**Final other necessities cost**

\$ 3,332 year

\$278 month

**Cost of Living Subtotal**

Family  
\$53,502 year

Per Worker (Family / 2)  
\$26,751 year

**Net Taxes**

**Low bound wage**

Family  
\$53,502 year

Per Worker  
\$26,751 year

**High bound wage (Low Bound \* 1.25)**

Family  
\$66,878

Per Worker  
\$33,439

**Tax liability**

Low bound  
\$4,510.93

High bound  
\$8,519.06

Average  
\$6,515.00

**Final net taxes cost (Equals average liability)**

\$6,515 year

\$543 month

**Cost of Living Total**

\$53,502 + 6,515 =

**Family Wage**

\$60,017 year

